

Abstract of the Disclosure

The present invention provides an HDP-CVD tool using simultaneous deposition and sputtering of doped and undoped silicon dioxide capable of excellent gap fill and blanket film deposition on wafers. The tool of the present invention includes: a dual RF zone inductively coupled plasma source; a dual zone gas distribution system; temperature controlled surfaces within the tool; a symmetrically shaped turbomolecular pumped chamber body; a dual cooling zone electrostatic chuck; an all ceramic/aluminum alloy chamber; and a remote plasma chamber cleaning system.